



To: Mr. Jeff R. Derouen
Executive Director
Kentucky Public Service Commission
P.O. Box 615
211 Sower Blvd.
Frankfort, Kentucky 40602

Date: October 2, 2009

File: 43011

Re: Sandy Hook Water
District - Water
System Improvements

RECEIVED

OCT 02 2009
PUBLIC SERVICE
COMMISSION

We are sending you:

2009-00401

herewith under separate cover drawings descriptive literature letters

Quantity	Identifying Number	Title	Action*
11		Convenience and Necessity	Y

* Action letter code: R-reviewed N-reviewed and noted I-for your information
S-resubmit J-rejected Y-for your approval

Remarks:

The enclosed are submitted for your review and approval. If you have any questions, please contact me at 859-684-7480.

Sincerely,

Riley Sumner

C: File

C: File

In the Matter of:

PUBLIC SERVICE COMMISSION

THE APPLICATION OF SANDY HOOK WATER DISTRICT FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT AN IMPROVEMENT PROJECT PURSUANT TO KRS 278.020

))) CASE NO. 2009-00401)))

APPLICATION

The Sandy Hook Water District (the "District"), by counsel, pursuant to KRS 278.020, petitions the Commission for a certificate of public convenience and necessity to construct a waterworks improvement project. The following information is filed in accordance with the Commission's regulations:

- 1. The District's office address is 1000 Howards Creek Road, PO Box 726, Sandy Hook, KY 41171. Its principal officers are listed in its 2008 Annual Report, which is on file with the Commission and is incorporated herein by reference pursuant to 807 KAR 5:001 Section (5)(5);
2. The District is a non-profit water district organized under KRS Chapter 74 and has no separate articles of incorporation or by-laws;
3. A description of the District's water system and its property stated at original cost by accounts is contained in its 2008 Annual Report. All required normal financial schedules and other data are in the 2008 Annual Report.
4. The water system improvements project consists of the installation and replacement of water mains in various parts of Elliott County and the construction of an Office building for the District.
5. The total project cost is approximately \$1,100,000 as set forth in the final project budget (see Exhibit "1" attached hereto);
6. The District has obtained all easements and rights of way required for the project;
7. This service will not compete with any other utility in the area;
8. Based on these facts, the District believes that it is in the public interest that this certificate of public convenience and necessity be granted;

9. Copies of the project maps and certified bid tabulations are attached as **Exhibit “2”**;

10. The following information is provided in response to 807 KAR 5:001 Section (8)(3);

a. Articles of Incorporation – None, the District is a statutorily created water district under KRS Chapter 74;

11. The following information is supplied to 807 KAR 5:001 Section (9)(2);

a. Facts relied upon to show that the project is in the public interest: The residents of the area to be served presently rely on groundwater or cisterns for their water supply. This project will provide water service to approximately ten (10) new customers in Elliott County. This project will replace some old sections of line improving service to seven (7) customers. The construction of an office with service bays will enable the District to maintain their equipment and supplies inside a facility instead of outside exposed to the weather.

b. No new franchises are required. Copies of the necessary permits are attached hereto as **“Exhibit “3”**;

c. Diagrams of the proposed construction and construction specifications are contained in the Plans and Specifications on file with the Commission;

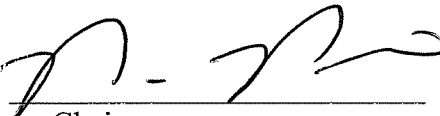
d. Three (3) maps of suitable scale showing the location of the proposed facilities are filed with this Application;

e. The construction costs will be funded by House Bill 680 funds. The District is not borrowing any funds in connection with the project;

f. The estimated cost of operation of the system after construction is completed is attached hereto as **“Exhibit 4”**.

WHEREFORE, the Applicant, Sandy Hook Water District requests that the Public Service Commission of Kentucky grant to the Applicant a Certificate of Public Convenience and Necessity permitting the Applicant to construct the Water Line Extension and Replacement Project – Contract 8 and Office Building – Contract 9.

Sandy Hook Water District

By: 
Chairman



September 4, 2009

Mr. Chris Ferguson
Standafer Builders, Inc.
P.O. Box 247
1178 W. Main Street
West Liberty, KY 41472

Re: Contract 9 – Administration Building
Sandy Hook Water District

Dear Mr. Ferguson:

Per our recent conversations, you are aware the Sandy Hook Water District's Contracts 8 and 9 combined are over the funding available. We have made every effort to review items from both contracts in order to proceed with the project. It is the intent of the Sandy Hook Water District to award the contract to Standafer Builders, Inc., only if the following items are removed from Contract 9.

1. Delete the Mezzanine storage area - \$7962.83~
2. Delete the Skylights - \$8,000.00
3. Change roof panels from *Standing Seam* to *Longspan*- \$3429.56
4. Delete GIS collection, software, and training - \$53,805.00
5. Delete chain link fencing - \$9138.00

The total amount of deductions from your contract is approximately \$82,335.39. Once PSC has granted the Public Convenience and Necessity documentation, you will be notified by this office to obtain your Performance and Payment Bonds, and a date will be set for the contract signings. The contracts will be signed for the actual bid amount, but a change order will be signed at the same time reducing your contract to \$608,259.61.

Pursuant to our discussions on the foundation, once the geotech is complete, and the foundation is designed and stamped, please submit for our review. Any changes that may result from that which was bid will be addressed accordingly.

If you have any questions, please contact me at your earliest convenience.

Sincerely,

Riley Sumner
Project Associate

C: Judy Stinson, SHWD
File



O'BRIEN & GERE

September 2, 2009

Mr. James Southern, Jr.
Southern Backhoe, Inc.
130 Warren Place
Campbellsville, Kentucky 42718

Re: Contract 8 – 2008 Water System Improvements
Sandy Hook Water District

Dear Mr. Southern:

Per our recent conversations, you are aware the Sandy Hook Water District's Contracts 8 and 9 combined are over the funding available. We have made every effort to review items from both contracts in order to proceed with the project. It is the intent of the Sandy Hook Water District to award the contract to Southern Backhoe, Inc., only if the following items are removed from Contract 8.

1. Main Street (KY 7) Water Line Replacement - \$30,341
2. Crestview Street Water Line Replacement - \$16,810
3. Simmons Road – Water Line Loop - \$15,875
4. Inspection of Cemetery Tank - \$6200
5. Inspection and Site Work at Wrigley Tank - \$6150

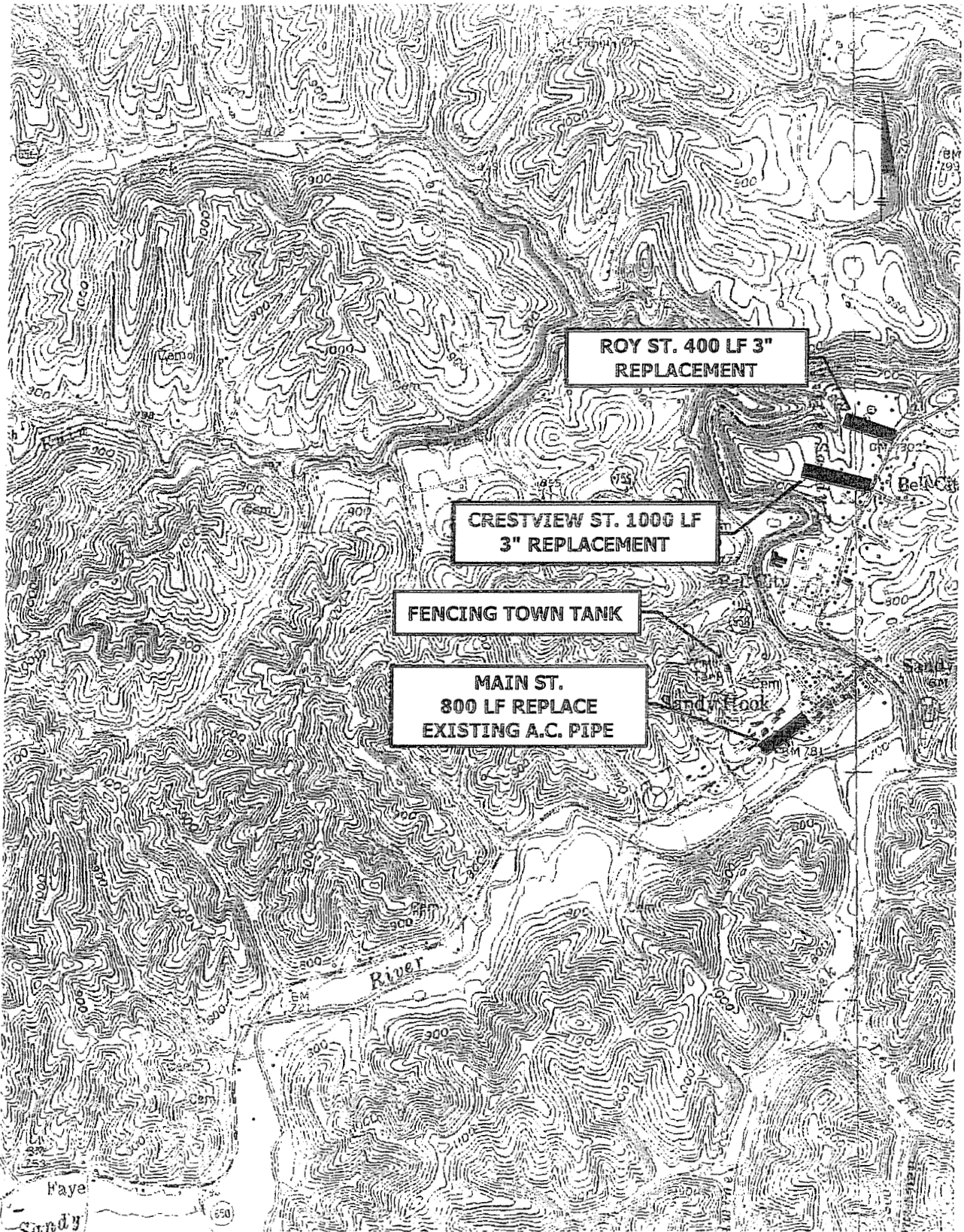
The total amount of deductions from your contract is approximately \$75,376. Once PSC has granted the Public Convenience and Necessity documentation, you will be notified by this office to obtain your Performance and Payment Bonds, and a date will be set for the contract signings. The contracts would be signed for the actual bid amount, but a change order will be signed at the same time reducing your contract to \$236,191.

If you have any questions, please contact me at your earliest convenience.

Sincerely,

Riley Sumner
Project Associate

C: Judy Stinson, SHWD
File



USGS MAPS: SANDY HOOK



O'BRIEN & GERE
 ENGINEERS, INC.
 1019 MAJESTIC DRIVE
 SUITE 110
 LEXINGTON, KY 40513
 PHONE: 253-223-3137

© 2005 O'Brien and Gere Engineers, Inc.

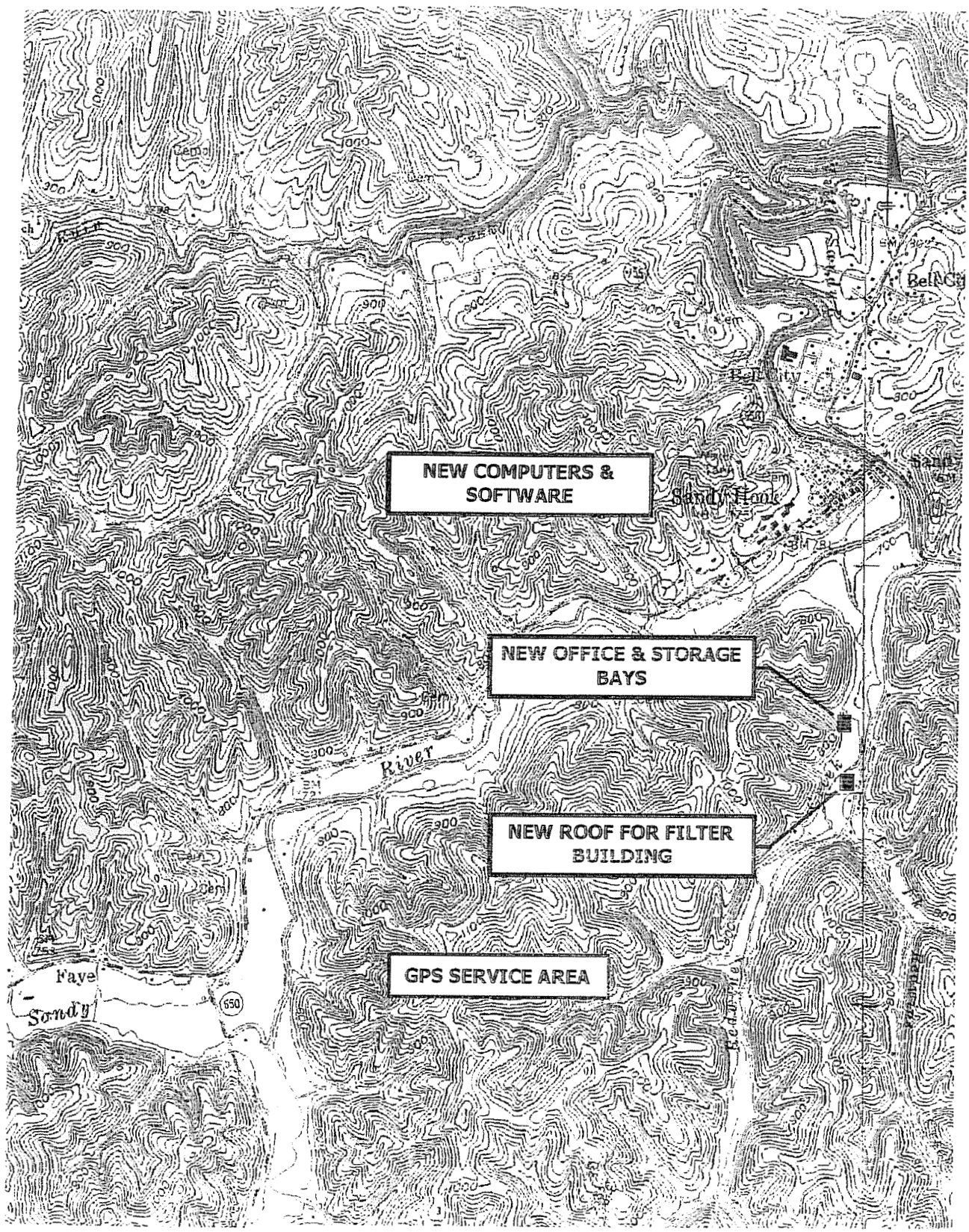
**SANDY HOOK WATER DISTRICT
 CONTRACT 8
 WATER SYSTEM IMPROVEMENTS
 SCALE 1"=2000'**

FILE NO
43011

DATE
OCT 2003

EXHIBIT NO
2

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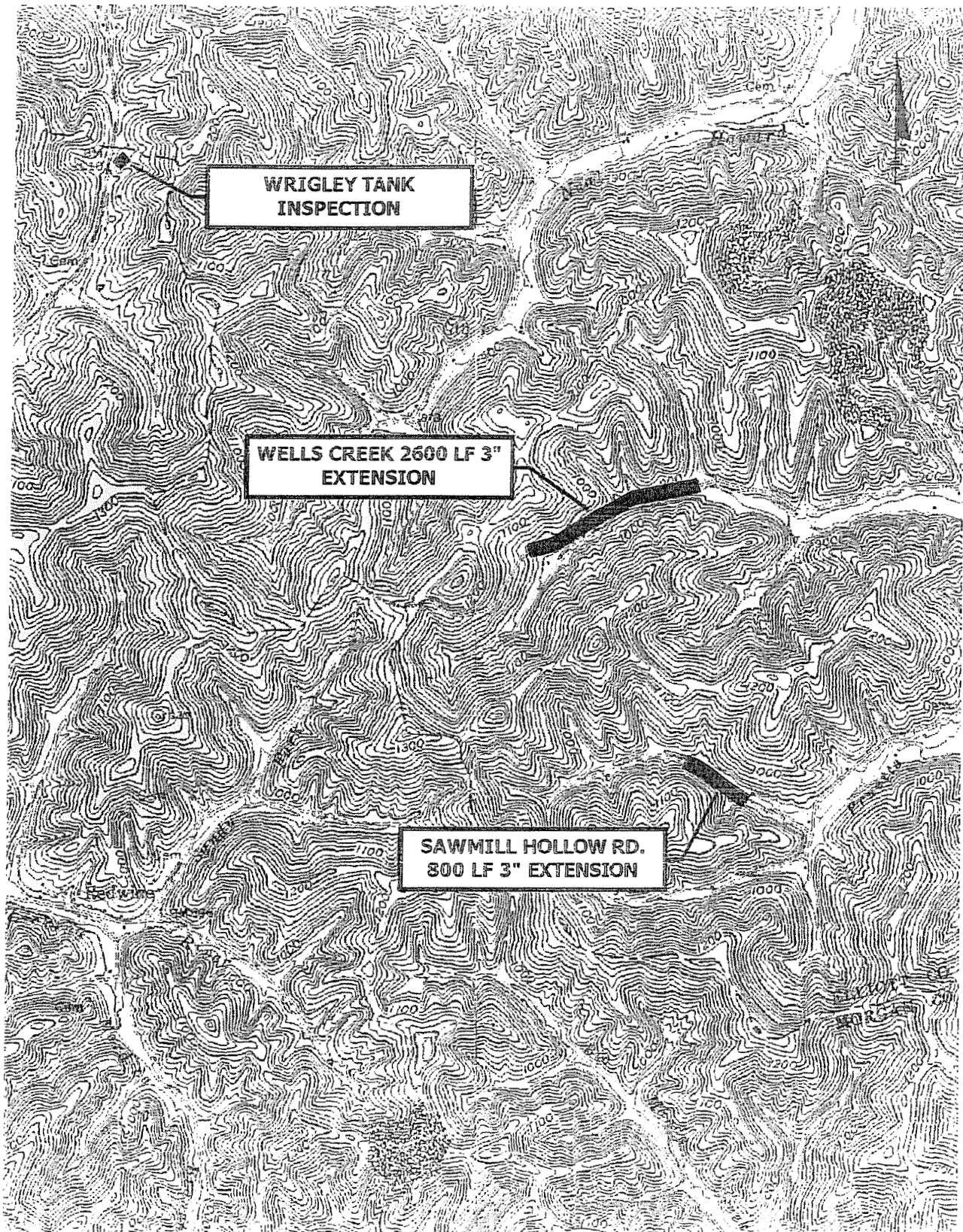
USGS MAPS: SANDY HOOK

O'BRIEN'S DERE
ENGINEERS INC.
1019 MAJESTIC DRIVE
SUITE 113
LEXINGTON, CT 06253
PHONE: 353-223-3137


SANDY HOOK WATER DISTRICT
CONTRACT 3
WATER SYSTEM IMPROVEMENTS
SCALE 1"=2000'

FILE NO.	43011
DATE	OCT 2008
EXHIBIT NO	3

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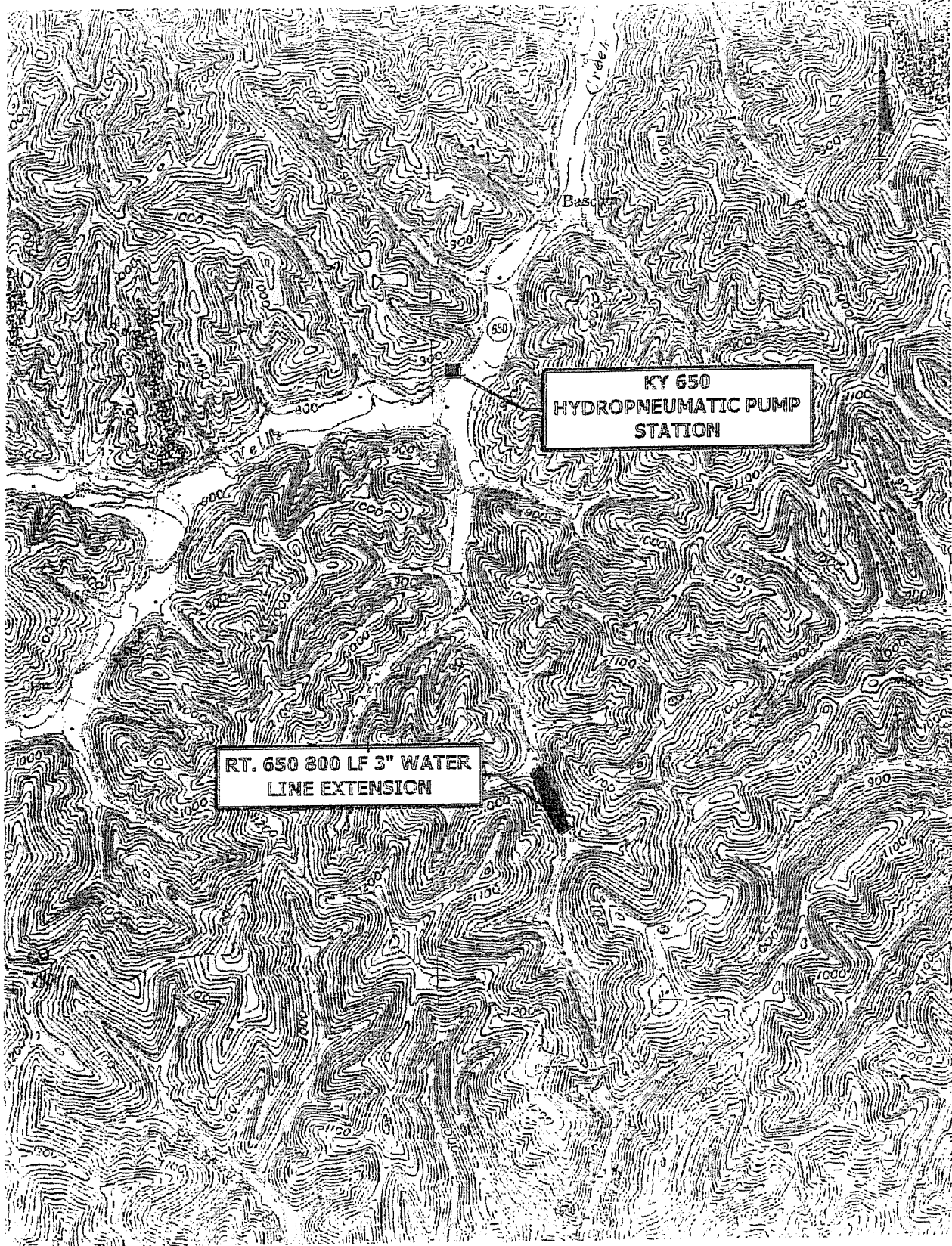
USGS MAPS: SANDY HOOK

 **O'BRIEN & GERE**
ENGINEERS, INC.
1019 MAJESTIC DRIVE
SUITE 110
LEXINGTON, KY 40513
PHONE: 353-223-0377

© 2005 O'Brien and Gere Engineers, Inc.

SANDY HOOK WATER DISTRICT
CONTRACT 8
WATER SYSTEM IMPROVEMENTS
SCALE 1"=2000'

FILE NO	43011
DATE	OCT 2008
EXHIBIT NO	4



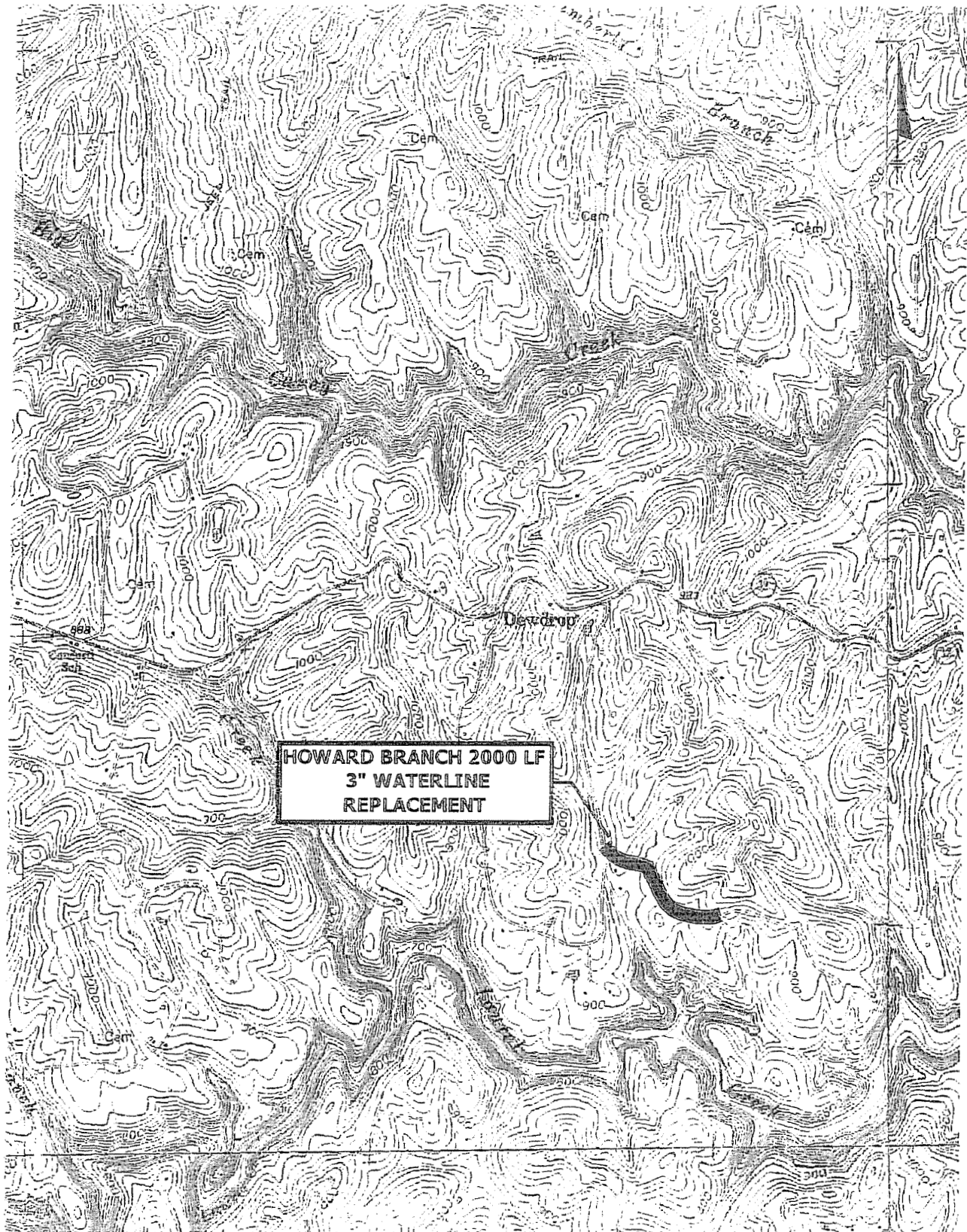
USGS MAPS: SANDY HOOK



BRIEN & DALE
ENGINEERS, INC.
 1010 WAVERLY DRIVE
 SLIDE 1 D
 LEXINGTON, KY 40513
 PHONE: 606-223-0137

SANDY HOOK WATER DISTRICT
 CONTRACT 3
 WATER SYSTEM IMPROVEMENTS
 SCALE 1"=2000

FILE NO	43011
DATE	OCT 2003
EXHIBIT NO	5



**HOWARD BRANCH 2000 LF
3" WATERLINE
REPLACEMENT**

USGS MAPS: AULT



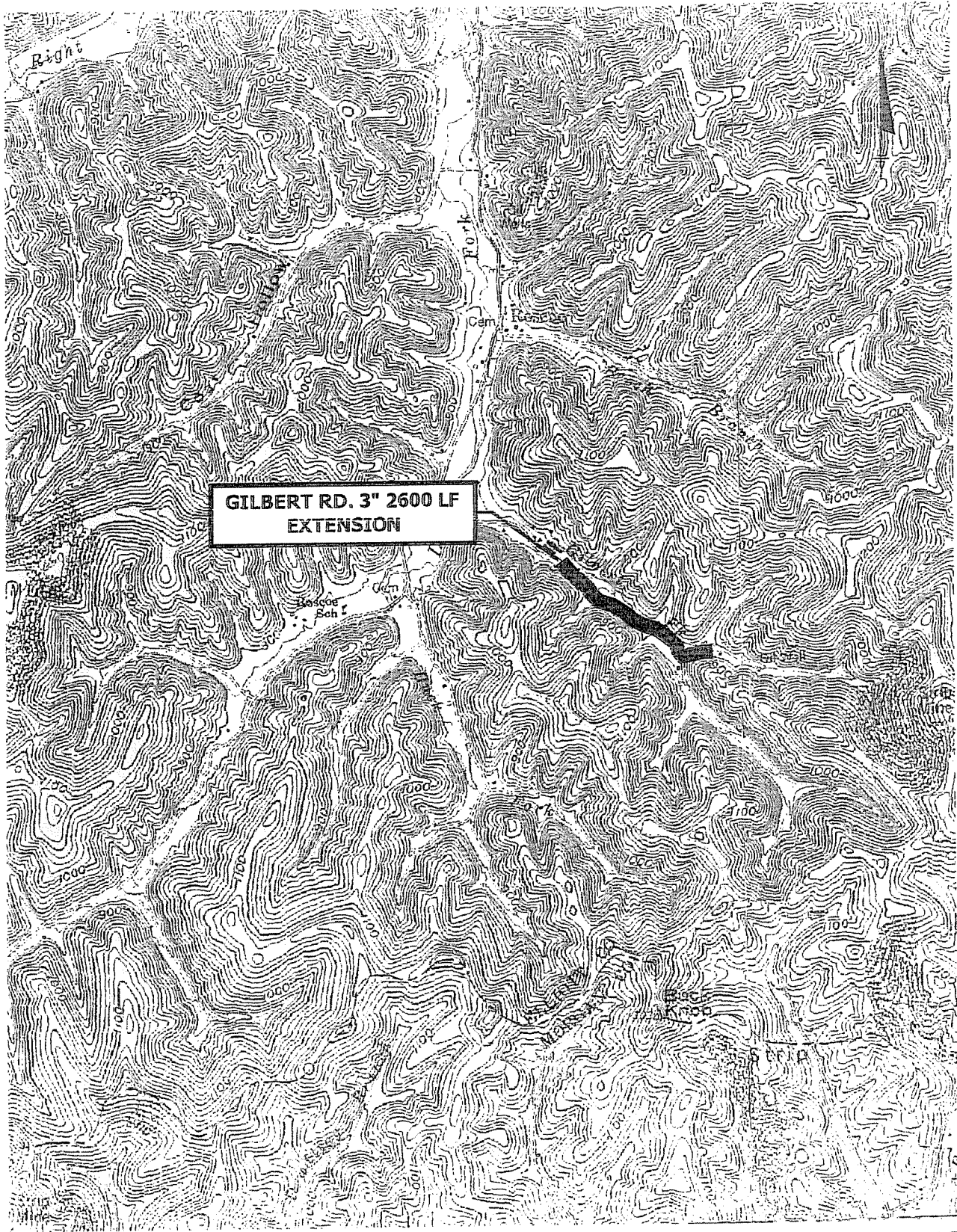
O'BRIEN & GERE
ENGINEERS INC
1019 MAJESTIC DRIVE
SUITE 110
LEXINGTON VA 40513
PHONE: 353-223-0357

SANDY HOOK WATER DISTRICT
CONTRACT 8
WATER SYSTEM IMPROVEMENTS
SCALE 1"=2000'

FILE NO
43011

DATE
OCT 2003

EXHIBIT NO
6



**GILBERT RD. 3" 2600 LF
EXTENSION**

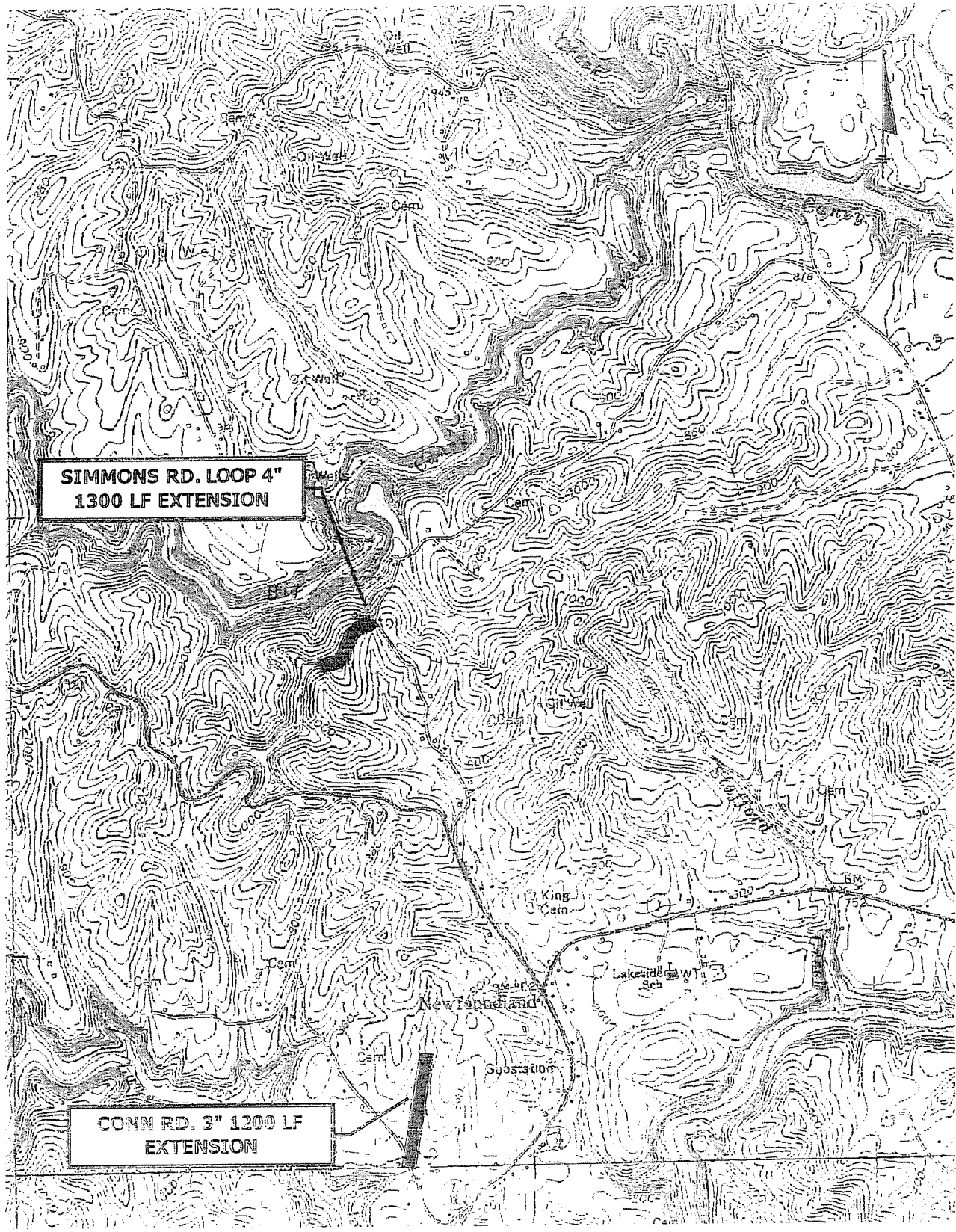
USGS MAPS: ISONVILLE



O'BRIEN & GERE
ENGINEERS INC
1019 MAJESTIC DRIVE
SUITE 110
LEXINGTON KY 40513
PHONE: 353-223-3100

SANDY HOOK WATER DISTRICT
CONTRACT 8
WATER SYSTEM IMPROVEMENTS
SCALE 1"=2000'

FILE NO	43011
DATE	OCT 2008
EXHIBIT NO	7



**SIMMONS RD. LOOP 4"
1300 LF EXTENSION**

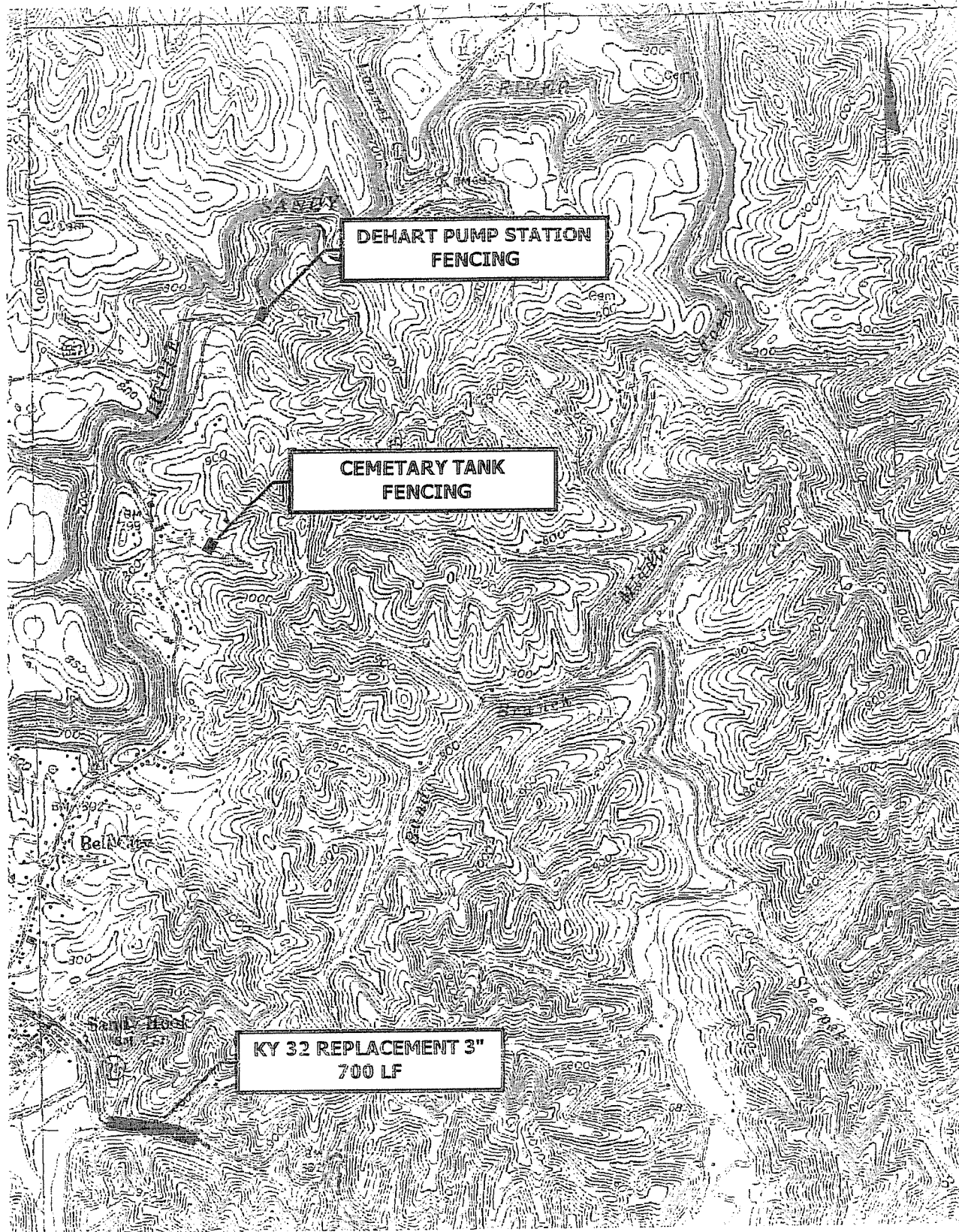
**CONN RD. 3" 1200 LF
EXTENSION**

USGS MAPS: BRUIN

O'BRIEN & CERE
ENGINEERS INC
1019 MAJESTIC DRIVE
SUITE 110
LEXINGTON, MA 01865
PHONE: 359-223-0157

SANDY HOOK WATER DISTRICT
CONTRACT 3
WATER SYSTEM IMPROVEMENTS
SCALE 1"=2000'

FILE NO	43011
DATE	OCT 2008
EXHIBIT NO	3



USGS MAPS: ISONVILLE



O'BRIEN & GERE
 ENGINEERS INC.
 1019 MAJESTIC DRIVE
 SUITE 110
 LEXINGTON, KY 40513
 PHONE: 353-223-0157

SANDY HOOK WATER DISTRICT
 CONTRACT 8
 WATER SYSTEM IMPROVEMENTS
 SCALE 1' = 2000'

FILE NO	43011
DATE	OCT. 2008
EXHIBIT NO	9

BID TABULATION

SANDY HOOK WATER DISTRICT

Contract No. 8- 2008 Water System Improvements

Thursday, July 23, 2008, 11:00 a.m., Local Time,

Sandy Hook Water District Office, 1000 Howards Creek Road, Sandy Hook, Kentucky

Item No.	Description	Quantity	Unit	Southern Backhoe, Inc. 808 West Main Street Campbellsville, KY		Beauty Ridge Gen. Contr. 6096 Beauty Ridge South Shore, KY		Correct Construction, Inc. 121 16th Street Ashland, KY		Silver Oaks Ventures, LLC 11298 US 80 East Salt Lick, KY		C & K Contracting, Inc. 6689 Laurel Creek Road Vanceburg, KY		ConnHurst, LLC 879 Wilson Run Road Wallingford, KY		Rural County Contractor 230 Oakcrest Drive Grayson, KY	
				\$/unit	Bid Amount	\$/unit	Bid Amount	\$/unit	Bid Amount	\$/unit	Bid Amount	\$/unit	Bid Amount	\$/unit	Bid Amount	\$/unit	Bid Amount
1	2-inch Water Main, PVC Pipe, Class 200 (ASTM D2241) SDR 21	200	LF	\$ 5.50	\$ 1,100.00	\$ 7.35	\$ 1,470.00	\$ 5.00	\$ 1,000.00	\$ 5.50	\$ 1,100.00	\$ 6.00	\$ 1,200.00	\$ 6.40	\$ 1,280.00	\$ 8.00	\$ 1,600.00
2	3-inch Water Main, PVC Pipe, Class 250 (ASTM D2241) SDR 17	2800	LF	\$ 7.00	\$ 19,600.00	\$ 6.25	\$ 17,500.00	\$ 5.80	\$ 16,240.00	\$ 5.92	\$ 16,576.00	\$ 6.50	\$ 18,200.00	\$ 7.85	\$ 21,420.00	\$ 11.36	\$ 31,808.00
3	4-inch Water Main, PVC Pipe, Class 200 (ASTM D2241) SDR 21	7900	LF	\$ 6.89	\$ 54,431.00	\$ 6.15	\$ 48,585.00	\$ 5.80	\$ 45,820.00	\$ 6.73	\$ 45,297.00	\$ 8.00	\$ 71,100.00	\$ 7.20	\$ 56,880.00	\$ 10.13	\$ 80,027.00
4	4-inch Water Main, PVC Pipe, Class 250 (ASTM D224X) SDR 17	1100	LF	\$ 7.11	\$ 7,821.00	\$ 6.90	\$ 7,590.00	\$ 7.50	\$ 8,250.00	\$ 8.35	\$ 9,185.00	\$ 12.00	\$ 13,200.00	\$ 7.70	\$ 8,470.00	\$ 12.72	\$ 14,000.00
5	8-inch Water Main, PVC Pipe Class 200 C-900 (ASTM D2241)	1400	LF	\$ 7.25	\$ 10,150.00	\$ 7.20	\$ 10,080.00	\$ 12.00	\$ 16,800.00	\$ 6.15	\$ 8,610.00	\$ 12.00	\$ 16,800.00	\$ 15.00	\$ 21,000.00	\$ 9.65	\$ 13,510.00
6	2-inch C.I. AWWA N.R.S. Gate Valve and Valve Box	800	LF	\$ 20.00	\$ 16,000.00	\$ 35.00	\$ 28,000.00	\$ 30.00	\$ 24,000.00	\$ 23.82	\$ 19,056.00	\$ 40.00	\$ 32,000.00	\$ 50.00	\$ 40,000.00	\$ 66.25	\$ 53,000.00
7	3-inch C.I. AWWA N.R.S. Gate Valve and Valve Box	1	EA	\$ 400.00	\$ 400.00	\$ 450.00	\$ 450.00	\$ 500.00	\$ 500.00	\$ 600.00	\$ 600.00	\$ 800.00	\$ 800.00	\$ 900.00	\$ 900.00	\$ 1,000.00	\$ 1,000.00
8	4-inch C.I. AWWA N.R.S. Gate Valve and Valve Box	4	EA	\$ 800.00	\$ 3,200.00	\$ 550.00	\$ 2,200.00	\$ 650.00	\$ 2,600.00	\$ 718.00	\$ 2,872.00	\$ 900.00	\$ 3,600.00	\$ 730.00	\$ 2,920.00	\$ 1,000.00	\$ 4,000.00
9	Tepping Sleeve & Valve, Complete In Place, (3", 4", 6")	1	EA	\$ 580.00	\$ 580.00	\$ 570.00	\$ 570.00	\$ 800.00	\$ 800.00	\$ 1,000.00	\$ 1,000.00	\$ 1,200.00	\$ 1,200.00	\$ 1,500.00	\$ 1,500.00	\$ 2,000.00	\$ 2,000.00
10	Replace existing meter settings w/new meter setting, meters, and reconnect to existing services.	4	EA	\$ 500.00	\$ 2,000.00	\$ 2,700.00	\$ 10,800.00	\$ 1,900.00	\$ 7,600.00	\$ 3,000.00	\$ 12,000.00	\$ 2,000.00	\$ 8,000.00	\$ 765.00	\$ 3,060.00	\$ 1,050.00	\$ 4,200.00
11	Set new meter setting, meters, and appurtenances on new water mains.	8	EA	\$ 650.00	\$ 5,200.00	\$ 850.00	\$ 6,800.00	\$ 1,000.00	\$ 8,000.00	\$ 1,000.00	\$ 8,000.00	\$ 1,000.00	\$ 8,000.00	\$ 850.00	\$ 6,800.00	\$ 900.00	\$ 7,200.00
12	Reconnect existing meter services to new water main	10	EA	\$ 650.00	\$ 6,500.00	\$ 750.00	\$ 7,500.00	\$ 1,000.00	\$ 10,000.00	\$ 1,000.00	\$ 10,000.00	\$ 800.00	\$ 8,000.00	\$ 336.00	\$ 3,360.00	\$ 1,000.00	\$ 10,000.00
13	5/8" x 3/4" Resetter with Ind. Pressure Reducing Valve and Existing Meter	26	EA	\$ 240.00	\$ 6,240.00	\$ 360.00	\$ 9,360.00	\$ 1,100.00	\$ 28,600.00	\$ 850.00	\$ 22,100.00	\$ 500.00	\$ 13,000.00	\$ 335.00	\$ 8,710.00	\$ 220.46	\$ 5,731.66
14	Additional 1" Polyethylene Tubing, CL 250	25	EA	\$ 520.00	\$ 13,000.00	\$ 440.00	\$ 11,000.00	\$ 550.00	\$ 13,750.00	\$ 600.00	\$ 15,000.00	\$ 650.00	\$ 16,250.00	\$ 400.00	\$ 10,000.00	\$ 390.00	\$ 9,750.00
15	12" Steel Casing Bored and Jacked	800	LF	\$ 4.50	\$ 3,600.00	\$ 12.00	\$ 9,600.00	\$ 10.00	\$ 8,000.00	\$ 8.75	\$ 7,000.00	\$ 8.50	\$ 6,800.00	\$ 6.00	\$ 4,800.00	\$ 2.50	\$ 2,000.00
16	PVC Open Cut Casing	85	LF	\$ 95.00	\$ 8,075.00	\$ 80.00	\$ 6,800.00	\$ 115.00	\$ 9,775.00	\$ 160.00	\$ 13,600.00	\$ 200.00	\$ 17,000.00	\$ 130.00	\$ 11,050.00	\$ 61.76	\$ 5,249.60
17	PRV Replacement in Existing Line w/new setter and prv	275	LF	\$ 20.00	\$ 5,500.00	\$ 40.00	\$ 11,000.00	\$ 28.00	\$ 7,700.00	\$ 40.00	\$ 11,000.00	\$ 15.00	\$ 4,125.00	\$ 115.00	\$ 31,625.00	\$ 48.00	\$ 13,199.75
18	Type C Creek Crossing	1	LF	\$ 750.00	\$ 750.00	\$ 700.00	\$ 700.00	\$ 2,200.00	\$ 2,200.00	\$ 800.00	\$ 800.00	\$ 1,000.00	\$ 1,000.00	\$ 800.00	\$ 800.00	\$ 1,075.00	\$ 1,075.00
19	Blow Off Assembly (Various Sizes)	240	LF	\$ 80.00	\$ 19,200.00	\$ 30.00	\$ 7,200.00	\$ 60.00	\$ 14,400.00	\$ 100.00	\$ 24,000.00	\$ 80.00	\$ 19,200.00	\$ 27.00	\$ 6,480.00	\$ 37.50	\$ 9,000.00
20	Flushing Hydrant Assembly (4" & 6")	8	LF	\$ 900.00	\$ 7,200.00	\$ 835.00	\$ 7,515.00	\$ 950.00	\$ 7,600.00	\$ 1,500.00	\$ 12,000.00	\$ 700.00	\$ 5,600.00	\$ 1,285.00	\$ 10,280.00	\$ 800.00	\$ 6,400.00
21	Cut and Plug Existing Water Main	2	LF	\$ 3,000.00	\$ 6,000.00	\$ 2,700.00	\$ 5,400.00	\$ 2,400.00	\$ 4,800.00	\$ 2,600.00	\$ 5,200.00	\$ 1,500.00	\$ 3,000.00	\$ 3,175.00	\$ 6,350.00	\$ 3,200.00	\$ 6,400.00
22	Hydro-pneumatic Pump Station, Electric, and Appurtenances	7	EA	\$ 200.00	\$ 1,400.00	\$ 500.00	\$ 3,500.00	\$ 850.00	\$ 5,950.00	\$ 1,000.00	\$ 7,000.00	\$ 700.00	\$ 4,900.00	\$ 525.00	\$ 3,675.00	\$ 100.00	\$ 700.00
23	Tie-in to Existing Blow Off Assembly	1	LS	\$ 70,000.00	\$ 70,000.00	\$ 87,200.00	\$ 87,200.00	\$ 75,000.00	\$ 75,000.00	\$ 100,000.00	\$ 100,000.00	\$ 90,000.00	\$ 90,000.00	\$ 100,000.00	\$ 100,000.00	\$ 72,000.00	\$ 72,000.00
24	3/4" Air Release Valve	4	EA	\$ 600.00	\$ 2,400.00	\$ 600.00	\$ 2,400.00	\$ 800.00	\$ 3,200.00	\$ 800.00	\$ 3,200.00	\$ 600.00	\$ 2,400.00	\$ 800.00	\$ 3,200.00	\$ 375.00	\$ 1,500.00
25	Partial Fencing and Site Work of Cemetery Tank Site	1	EA	\$ 400.00	\$ 400.00	\$ 600.00	\$ 600.00	\$ 620.00	\$ 620.00	\$ 800.00	\$ 800.00	\$ 600.00	\$ 600.00	\$ 800.00	\$ 800.00	\$ 375.00	\$ 375.00
26	Fencing and Site Work of Dehart Pump Station	1	LS	\$ 3,000.00	\$ 3,000.00	\$ 7,500.00	\$ 7,500.00	\$ 6,200.00	\$ 6,200.00	\$ 8,100.00	\$ 8,100.00	\$ 6,000.00	\$ 6,000.00	\$ 8,000.00	\$ 8,000.00	\$ 4,700.00	\$ 4,700.00
27	Fencing and Site Work of Town Tank Site	1	LS	\$ 4,500.00	\$ 4,500.00	\$ 5,500.00	\$ 5,500.00	\$ 5,500.00	\$ 5,500.00	\$ 7,500.00	\$ 7,500.00	\$ 6,000.00	\$ 6,000.00	\$ 8,000.00	\$ 8,000.00	\$ 5,000.00	\$ 5,000.00
28	Inspection and Site Work of Wrigley Tank	1	LS	\$ 6,000.00	\$ 6,000.00	\$ 12,340.00	\$ 12,340.00	\$ 8,200.00	\$ 8,200.00	\$ 4,200.00	\$ 4,200.00	\$ 4,000.00	\$ 4,000.00	\$ 9,000.00	\$ 9,000.00	\$ 4,700.00	\$ 4,700.00
29	Inspection of Cemetery Tank	1	LS	\$ 6,150.00	\$ 6,150.00	\$ 6,860.00	\$ 6,860.00	\$ 8,000.00	\$ 8,000.00	\$ 8,100.00	\$ 8,100.00	\$ 4,000.00	\$ 4,000.00	\$ 9,000.00	\$ 9,000.00	\$ 4,700.00	\$ 4,700.00
30	Driveway Bore w/PVC Casing	60	LF	\$ 2,000.00	\$ 120,000.00	\$ 3,500.00	\$ 210,000.00	\$ 3,800.00	\$ 228,000.00	\$ 4,800.00	\$ 288,000.00	\$ 120.00	\$ 7,200.00	\$ 25.00	\$ 1,500.00	\$ 100.00	\$ 6,000.00
31	TOTAL BID CALCULATED BID AMOUNT			\$ 311,587.00		\$ 358,420.00		\$ 361,808.00		\$ 382,765.00		\$ 417,075.00		\$ 450,950.00		\$ 473,697.28	

NUMBERS IN RED INDICATE ERRORS IN CONTRACTOR'S BID AMOUNT CALCULATIONS

The above is a true and complete tabulation of the bids received at 11:00 a.m. local time, Thursday, July 23, 2008 at Sandy Hook Water District, Sandy Hook, KY
I certify that this is true and accurate tabulation of the bids.

O'BRIEN & GERE ENGINEERS, INC.

L. Riley Sumner
L. Riley Sumner
Project Associate



STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

ENERGY AND ENVIRONMENT CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION OF WATER

200 FAIR OAKS LANE, 4TH FLOOR

FRANKFORT, KENTUCKY 40601

www.kentucky.gov

April 26, 2009

Judy Stinson, Manager
Sandy Hook Water District
141 Main St
Sandy Hook, KY 41171

RE: Sandy Hook Water District
AI # 996, APE20090001
PWSID # 0320383-09-001
Contract 8 - 2008 Water System Improvements
Elliott County, KY

Dear Ms. Stinson:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 750 ft of 6-inch PVC waterline, 2,362 ft of 4-inch PVC waterline, 10,665 ft of 3-inch PVC waterline and 200 ft of 2-inch PVC waterline. Plans also include the construction of a hydropneumatic BPS operating at 45 GPM @ 185 ft TDH with 2-190 gallon hydropneumatic water storage tanks. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

Based on the hydraulic analysis/data submitted, the areas served by the Gilbert Road waterline extension are considered to be underserved. This designation indicates that without improvements to the existing infrastructure, future extensions may not be able to provide the required minimum pressure of 30 psi on the discharge side of customers' meters. Without improvements to the infrastructure, future extensions may be denied. The underserved designation may be used to help prioritize areas under the Governor's 2020 plan for funding future infrastructure improvements.

For the purpose of review, DOW will not approve lines less than 3-inches for distribution. When 2-inch lines are proposed for distribution they are approved on a case-by-case basis with the stipulations that such cannot be extended. In areas where lines may be extended in the future, DOW reserves the right to approve 3-inch waterlines as a minimum diameter.

If you have any questions concerning this project, please contact Mr. Terry Humphries at 502-564-8158 extension 4837.

Sincerely,

Solitha Dharman, PE
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

SWD.TWH

Enclosures

C: O'Brien & Gere Engineers Inc
Elliott County Health Department
Public Service Commission

Distribution-1, Major Construction

Sandy Hook Water District

Subject Item Inventory

Activity ID No.: APE20090001

Subject Item Inventory:

ID	Designation	Description
AIOO996		
PORT10	Hydropneumatic BPS	hydropneumatic BPS at 45 GPM @ 185 ft TDH
PORT11	Waterlines	750 ft of 6-inch PVC waterline, 2,362 ft of 4-inch PVC waterline, 10,665 ft of 3-inch PVC waterline and 200 ft of 2-inch PVC waterline
STOR1	Hydropneumatic Tanks	2-190 gallon hydropneumatic water storage tanks

Subject Item Groups:

ID	Description	Components
GACT13	750 ft of 6-inch PVC waterline, 2,362 ft of 4-inch PVC waterline, 10,665 ft of 3-inch PVC waterline and 200 ft of 2-inch PVC waterline. Plans also include the construction of a hydropneumatic BPS operating at 45 GPM @ 185 ft TDH with 2-190 gallon hydropneumatic water storage tanks	<p>PORT11 750 ft of 6-inch PVC waterline, 2,362 ft of 4-inch PVC waterline, 10,665 ft of 3-inch PVC waterline and 200 ft of 2-inch PVC waterline</p> <p>STOR1 2-190 gallon hydropneumatic water storage tanks</p>

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ID	Description	Components
GACT13	750 ft of 6-inch PVC waterline, 2,362 ft of 4-inch PVC waterline, 10,665 ft of 3-inch PVC waterline and 200 ft of 2-inch PVC waterline. Plans also include the construction of a hydropneumatic BPS operating at 45 GPM @ 185 ft TDH with 2-190 gallon hydropneumatic water storage tanks	PORT10 hydropneumatic BPS at 45 GPM @ 185 ft TDH

KEY

ACTV = Activity

AREA = Area

EQPT = Equipment

PERS = Personnel

STOR = Storage

TRMT = Treatment

AIOO = Agency Interest

COMB = Combustion

MNPT = Monitoring Point

PORT = Transport

STRC = Structure

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GACT0000000013 (Contract 8 - 2008 Water System Improvements) 750 ft of 6-inch PVC waterline, 2,362 ft of 4-inch PVC waterline, 10,665 ft of 3-inch PVC waterline and 200 ft of 2-inch PVC waterline. Plans also include the construction of a hydropneumatic BPS operating at 45 GPM @ 185 ft TDH with 2-190 gallon hydropneumatic water storage tanks:

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new or relocated water line(s). Take samples at connection points to existing lines, at 1 mile intervals, and at dead ends without omitting any branch of the new or relocated water line. Sample bottles shall be clearly identified as "special" construction tests. [401 KAR 8:100 Section 1(7), 401 KAR 8:150 Section 4, Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
M-2	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new storage structure(s). With at least 1 sample taken at least 24 hours after the first construction complete sample(s), take 2 or more samples from the yard hydrant, the outlet piping from the storage structure, or a sample tap directly connected to the storage structure. Sample bottles shall be clearly identified as "special" construction tests. [Recommended Standards for Water Works 7.0.18, 401 KAR 8:150 Section 4] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
M-3	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new pump(s). If the pump(s) are independent of (not directly connected to) the new or relocated lines, take at least 1 sample at the discharge side pitcock. Otherwise, no additional sampling beyond the sampling required for new or relocated lines shall be required in association with the pump(s). Sample bottles shall be clearly identified as "special" construction tests. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

Submittal/Action Requirements:

Coliform:

Condition No.	Condition
S-1	Coliform For new construction projects, the distribution system, using the most expedient method, shall submit Coliform test results to the Cabinet: Due immediately following disinfection and flushing. [401 KAR 8:150 Section 4(2)]

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GACT0000000013 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-2	For proposed changes to the approved plan, submit information: Due prior to any modification to the Cabinet for approval. Changes to the approved plan shall not be implemented without the prior written approval of the Cabinet. [401 KAR 8:100 Section 1(8)]
S-3	The person who presented the plans shall submit the professional engineer's certification: Due when construction is complete to the Division of Water. The certification shall be signed by a registered professional engineer and state that the water project has been constructed and tested in accordance with the approved plans, specifications, and requirements. [401 KAR 8:100 Section 1(8)]

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	Additional Limitations: Chlorinated water resulting from disinfection of project components shall be disposed in a manner which will not violate 401 KAR 5:031. [401 KAR 8:020 Section 2(20)]

Condition No.	Condition
T-2	This project has been permitted under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies. Further, this permit does not address the authority of the permittee to provide service to the area to be served. [401 KAR 8:100 Section 1(7)]
T-3	Unless construction of this project is begun within 1 year from the issuance date of this permit, the permit shall expire. If requested prior to the permit expiration, an official extension from the Division of Water may be granted. If this permit expires, the original plans and specifications may be resubmitted for a new comprehensive review. If you have any questions concerning this project, please contact the Drinking Water Branch at 502/564-3410. [401 KAR 8:100 Section 1(9)]

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Narrative Requirements:

Condition
No.

Condition

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| T-4 | Final approval of facility. Upon completion of construction, the person who presented the plans shall certify in writing that the project has been completed in accordance with the "approved" plans and specifications. The public water supply shall operate the facility consistent with the approved plans and specifications. Any proposed change to the approved plan shall be submitted to the cabinet for approval. The public water supply shall not implement any change to the approved plan without the prior written approval of the cabinet. [401 KAR 8:100 Section 401 KAR 8:100(1)(8)] |
| T-5 | During construction, a set of approved plans and specification shall be available at the job site at all times. All work shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 1(7)(a)] |

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PORT0000000010 (Hydropneumatic BPS) hydropneumatic BPS at 45 GPM @ 185 ft TDH:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Pressure	Pump stations shall be located or controlled so that intake Pressure \geq 20 psi is maintained during normal pump operation. [Recommended Standards for Water Works 6.4.b] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-2	Pressure	Pump stations shall be located or controlled so that an automatic cutoff or a low pressure controller maintains a Pressure \geq 10 psi in the suction line under all operating conditions. [Recommended Standards for Water Works 6.4.c] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Residual Disinfection	New pumps shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect new pumps use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection \geq 25 ppm at the end of 24 hours. Follow the disinfection with thorough flushing and place each pump into service if, and only if, Coliform monitoring applicable to the pump does not show the presence of Coliform. If Coliform is detected, repeat flushing of the pump and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the pump has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-4	Slope	Pumping facilities shall be located and designed to maintain the sanitary quality of pumped water. As part of this, all pump station floors shall have Slope \geq 3 in per 10 ft to a suitable drain. [Recommended Standards for Water Works 6.2.e, Recommended Standards for Water Works 6.0, Recommended Standards for Water Works 6.1] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-5	Air Change Rate	Ventilation shall conform to existing local and/or state codes. At a minimum forced ventilation shall produce an Air Change Rate \geq 6 air change(s)/hr. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 6.2.5] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.

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PORT0000000010 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
L-6	Height	Pumping stations shall not be subject to flooding. To this end, 1) grading around stations shall lead surface drainage away and 2) stations shall be elevated or protected to a Height \geq 3 ft above the highest of the following: a) the 100-year flood elevation, or b) the highest recorded flood elevation. [Recommended Standards for Water Works 6.1.1, Recommended Standards for Water Works 6.0] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-7	Height	When a pump station has pits or compartments which must be entered, stairways or ladders shall be provided between all floors. Stairs shall have risers with a Height \leq 9 in, handrails on both sides, and treads with non-slip material wide enough for safety. [Recommended Standards for Water Works 6.2.3] This requirement is applicable during the following months: All Year. Statistical basis: Maximum.

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	Additional Limitations: Pumping stations shall be so located that the proposed site will meet the requirements for hydraulics of the system. [Recommended Standards for Water Works 6.1]
T-2	Additional Limitations: Pumping stations shall be readily accessible at all times for servicing and repairs. [Recommended Standards for Water Works 6.1.1.b, Recommended Standards for Water Works 6.4.3]
T-3	Additional Limitations: Pumping stations shall be designed to prevent vandalism and protect against entrance of animals or unauthorized persons. [Recommended Standards for Water Works 6.1.1.d]
T-4	Additional Limitations: Pumping stations shall be of durable construction with outward-opening doors. [Recommended Standards for Water Works 6.2.b]

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PORT000000010 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-5	Additional Limitations: Pumping stations shall be fire and weather resistant. [Recommended Standards for Water Works 6.2.b]
T-6	Additional Limitations: Pumping stations shall have suitable pump gland discharges so that drainage from the glands is not onto the floor. [Recommended Standards for Water Works 6.2.f]
T-7	Additional Limitations: If underground structures are present at pumping stations, they shall be waterproofed. [Recommended Standards for Water Works 6.2.d]
T-8	Additional Limitations: Pumping stations shall have adequate space for the installation of additional pumps. [Recommended Standards for Water Works 6.2.a]
T-9	Additional Limitations: Pumping stations shall have adequate space for the safe servicing of all equipment. [Recommended Standards for Water Works 6.2.a]
T-10	Additional Limitations: Pump stations shall have crane-ways, hoist beams, eyebolts, or other adequate facilities for servicing or removal of pumps, motors or other heavy equipment. [Recommended Standards for Water Works 6.2.2.a]
T-11	Additional Limitations: Pump stations shall have openings as needed for removal of heavy or bulky equipment. [Recommended Standards for Water Works 6.2.2.b]
T-12	Additional Limitations: Pump stations shall have a convenient tool board, or other facilities as needed, for proper maintenance of equipment. [Recommended Standards for Water Works 6.2.2.c]
T-13	Additional Limitations: In areas where excess moisture could cause safety hazards or damage to equipment, dehumidification shall be provided. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 6.2.6]
T-14	Additional Limitations: Electrical controls shall be located above grade. [Recommended Standards for Water Works 6.6.5]

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PORT000000010 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
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T-15	Additional Limitations: All electrical equipment and work shall conform with the applicable state and local electrical codes and the National Electrical Code. [Recommended Standards for Water Works 6.5, Recommended Standards for Water Works 6.2.7]
T-16	Additional Limitations: Pump stations shall be adequately lighted throughout. [Recommended Standards for Water Works 6.2.7]
T-17	Additional Limitations: All automatic pump stations shall be provided with automatic signaling apparatus which will report when the station is out of service. All remote controlled stations shall be electrically operated and controlled and shall have signaling apparatus of proven performance. [Recommended Standards for Water Works 6.5]
T-18	Additional Limitations: Automatic or remote control pump stations shall be located or shall have control devices setup so that the range between start and cutoff pressure prevents excessive pump cycling. [Recommended Standards for Water Works 6.4.d]
T-19	Additional Limitations: Equipment shall be provided or other arrangements made to prevent surge pressures from activating controls which switch on pumps or activate other equipment outside the normal design cycle of operation. [Recommended Standards for Water Works 6.6.5]
T-20	Additional Limitations: Provisions shall be made to prevent energizing the motor in the event of a backspin cycle. [Recommended Standards for Water Works 6.6.5]
T-21	Additional Limitations: Pump stations shall be provided with enough heat to prevent freezing of equipment or treatment processes. [Recommended Standards for Water Works 6.2.4]
T-22	Additional Limitations: Pump stations shall have at least 2 pumps. Pumps shall be sized so that if any single pump is out service, the remaining pump or pumps shall be capable of providing the peak demand on the station. Additionally, pumps shall be sized so that the pump station is capable of providing at least 10 times the average demand of the area served by the station. [Recommended Standards for Water Works 6.3, Recommended Standards for Water Works 6.4.1, Recommended Standards for Water Works 7.2.2.a]

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PORT0000000010 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-23	Additional Limitations: Provisions shall be made for pump alternation. [Recommended Standards for Water Works 6.6.5]
T-24	Additional Limitations: Pumps shall a) have ample capacity to supply the peak demand against the required distribution system pressure without dangerous overloading, b) be driven by prime movers able to meet the maximum horsepower condition of the pumps, c) be provided readily available spare parts and tools, and d) be served by control equipment that is properly protected against temperatures to be encountered. [Recommended Standards for Water Works 6.3]
T-25	Additional Limitations: Pumps, their prime movers and accessories shall be controlled in such a manner that they will operate at rated capacity without dangerous overload. [Recommended Standards for Water Works 6.6.5]
T-26	Additional Limitations: Pump stations shall be located or controlled so that a bypass is available. [Recommended Standards for Water Works 6.4.e]
T-27	Additional Limitations: Pump stations shall contain indicating and totalizing metering of the total water pumped. Each pump shall have a) a standard pressure gauge on its discharge line and b) a compound gauge on its suction line. Each pump should have a means for measuring the instantaneous volume per time discharge. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 6.4.2, Recommended Standards for Water Works 6.6.3]
T-28	Additional Limitations: Pumps shall be adequately valved to permit satisfactory operation, maintenance and repair of the equipment. Each pump shall have a positive-acting check valve on the discharge side between the pump and the shut-off valve. [Recommended Standards for Water Works 6.6.1]

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PORT0000000010 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-29	<p>Additional Limitations: Piping for pumps shall, in general,</p> <ol style="list-style-type: none">1) be designed so that the friction losses will be minimized,2) not be subject to contamination,3) have watertight joints,4) be protected against surge or water hammer,5) be provided with restraints where necessary, and6) a) be such that each pump has an individual suction line or6) b) be manifolded such that the lines insure similar hydraulic and operating conditions. [Recommended Standards for Water Works 6.6.2]
T-30	<p>Additional Limitations: To ensure continuous service when the primary power is interrupted, power supplied to pump stations shall be</p> <ol style="list-style-type: none">a) from at least 2 independent sources orb) from a primary source with a standby or auxiliary source provided. <p>If standby power is provided by onsite generators or engines, the fuel storage and fuel line must be designed to protect the water supply from contamination. [Recommended Standards for Water Works 6.6.6]</p>

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PORT0000000011 (Waterlines) 750 ft of 6-inch PVC waterline, 2,362 ft of 4-inch PVC waterline, 10,665 ft of 3-inch PVC waterline and 200 ft of 2-inch PVC waterline:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Depth	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a Depth ≥ 6 in below the bottom of the pipe. [Recommended Standards for Water Works 8.5.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-2	Depth	All water lines shall be covered to a Depth ≥ 30 in to prevent freezing. [Recommended Standards for Water Works 8.5.3, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Diameter	Water lines in the Crestview Street Area may have Diameter = 2 in but such lines shall not be extended. [Recommended Standards for Water Works 8.1.4] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-4	Diameter	Water lines with Diameter < 6 in shall not have fire hydrants. [Recommended Standards for Water Works 8.1.5] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-5	Diameter	All new and existing water lines serving fire hydrants or where fire protection is provided shall have Diameter ≥ 6 in. [Recommended Standards for Water Works 8.1.2] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-6	Distance	Water lines shall have a sufficient quantity of valves so that inconvenience and sanitary hazards will be minimized during repairs. A valve spacing Distance ≤ 1.0 mi should be utilized. [Recommended Standards for Water Works 8.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-7	Distance	Hydrant drains shall not be connected to sanitary sewers or storm drains and shall be located a Distance > 10 ft from sanitary sewers and storm drains. [Recommended Standards for Water Works 8.3.4] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.

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Limitation Requirements:

Condition No.	Parameter	Condition
L-8	Distance	<p>Except when not practical, water lines shall be laid a horizontal Distance ≥ 10 ft from any existing or proposed sewer. The distance shall be measured edge to edge.</p> <p>In cases where it is not practical to maintain a 10 foot separation, water lines may be installed closer to a sewer provided that the water lines shall be laid in a separate trench or on an undisturbed shelf located on one side of the sewer at such an elevation that the bottom of the water line is at least 18 inches above the top of the sewer. [Recommended Standards for Water Works 8.6.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.</p>
L-9	Distance	<p>When water lines and sewers cross,</p> <ol style="list-style-type: none">1) water lines shall be laid such that either<ol style="list-style-type: none">a) the the top of the water line is a vertical Distance ≥ 18 in below the bottom of the sewer line orb) the bottom of the water line is a vertical Distance ≥ 18 in above the top of the sewer line,2) 1 full length of the water pipe shall be located so that both joints of the water pipe will be as far from the sewer as possible, and3) special structural support for the water and sewer pipes may be required. [Recommended Standards for Water Works 8.6.3] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-10	Distance	<p>The open end of an air relief pipe from automatic valves shall be extended a Distance ≥ 1.0 ft above grade and provided with a screened, downward-facing elbow. The pipe from a manually operated valve shall be extended to the top of the pit. Use of manual air relief valves is recommended wherever possible. [Recommended Standards for Water Works 8.4.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.</p>
L-11	Pressure	<p>Pipes shall not be installed unless all points of the distribution system remain designed for ground level Pressure ≥ 20 psi under all conditions of flow. [Recommended Standards for Water Works 8.1.1] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>
L-12	Pressure	<p>Pressure ≥ 30 psi must be available on the discharge side of all meters. [401 KAR 8:100 Section 4(2)] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.</p>

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Limitation Requirements:

Condition No.	Parameter	Condition
L-13	Residual Disinfection	New or relocated water lines shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect the new or relocated lines use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection ≥ 25 ppm at the end of 24 hours. Follow the line disinfection with thorough flushing and place the lines into service if, and only if, Coliform monitoring applicable to the line does not show the presence of Coliform. If Coliform is detected, repeat flushing of the line and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the line has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:150 Section 4(1), Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-14	Velocity	Except in underserved areas, each blow-off, fire hydrant, or flush hydrant shall be sized so that Velocity ≥ 2.5 ft/sec can be achieved in the water main served by the blow-off or hydrant during flushing. Based on the hydraulic analysis/data submitted, the areas served by the following extension(s) are considered to be underserved: a) Gilbert Road. This designation indicates that without improvements to the existing infrastructure, future extensions may not be able to provide the required minimum pressure of 30 psi on the discharge side of customers' meters. Without improvements to the infrastructure, future extensions may be denied. The underserved designation may be used to help prioritize areas under the Governor's 2020 plan for funding future infrastructure improvements. [Recommended Standards for Water Works 8.1.6.b, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1	leaks	The presence or absence of leaks monitored by physical testing as needed shall be determined in all types of installed pipe. Pressure testing and leakage testing shall be in accordance with the latest edition of AWWA Standard C600. [Recommended Standards for Water Works 8.5.5] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

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PORT0000000011 (continued):

Narrative Requirements:

Asbestos (Friable):

Condition No.	Condition
T-1	Asbestos (Friable): If the existing water line to be tapped is asbestos concrete, then the contractor shall conform to OSHA regulations governing the handling of hazardous waste during the process of tapping the asbestos concrete line. Pieces of asbestos concrete resulting from the tap shall be double bagged, placed in a rigid container and disposed of in an approved landfill. [401 KAR 8:100 Section 1(7)]

Additional Limitations:

Condition No.	Condition
T-2	Additional Limitations: Water line installation shall be in accordance with AWWA standards or manufacturer recommendations. [Recommended Standards for Water Works 8.5.1]
T-3	Additional Limitations: Pipes, fittings, valves and fire hydrants shall conform to the latest standards issued by the AWWA or NSF (if such standards exist). PVC and PE piping used must be certified to ANSI/NSF Standard 61. [Recommended Standards for Water Works 8.0.1]
T-4	Additional Limitations: At high points in water lines, where air can accumulate, provisions shall be made to remove the air by means of hydrants or air relief valves. Automatic air relief valves shall not be used in situations where manhole or chamber flooding may occur. [Recommended Standards for Water Works 8.4.1]
T-5	Additional Limitations: All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.5.4]
T-6	Additional Limitations: A flush hydrant or blow-off shall be required at the end of each dead end line that is less than 6 inches in diameter. [Recommended Standards for Water Works 8.1.6]
T-7	Additional Limitations: For each fire or flush hydrant, auxiliary valves shall be installed in the hydrant lead pipe. [Recommended Standards for Water Works 8.3.3]

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Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-8	<p>Additional Limitations: No flushing device, blow-off, or air relief valve shall be directly connected to any sewer. Chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances shall not be directly connected to any storm drain or sanitary sewer. Such chambers, pits or manholes shall be drained to absorptions pits underground or to the surface of the ground where they are not subject to flooding by surface water. [Recommended Standards for Water Works 8.1.6, Recommended Standards for Water Works 8.4.3]</p>
T-9	<p>Additional Limitations: If water lines are installed or replaced in areas of organic contamination or in areas within 200 ft of underground or petroleum storage tanks, ductile iron or other nonpermeable materials shall be used in all portions of the water line installation or replacement. [401 KAR 8:100 Section 1(5)(d)6, Recommended Standards for Water Works 8.0.2]</p>
T-10	<p>Additional Limitations: No water pipe shall pass through or come in contact with any part of a sewer manhole. [Recommended Standards for Water Works 8.6.6]</p>
T-11	<p>Additional Limitations: If a fire sprinkler system is to be installed, a double check detector assembly approved for backflow prevention shall be utilized. The double check detector assembly of the system shall be accessible for testing. [401 KAR 8:100 Section 1(7)]</p>
T-12	<p>Additional Limitations: If water lines cross a stream or wetland, the provisions in the attached Water Quality Certification shall apply. If you have any questions please contact the Water Quality Certification Supervisor of the Water Quality Branch at (502) 564-2225. [401 KAR 8:100 Section 1(7)]</p>

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PORT000000011 (continued):

Narrative Requirements:

Subfluvial Pipe Crossings:

Condition No.	Condition
T-13	<p>Subfluvial Pipe Crossings: For subfluvial pipe crossings, a floodplain construction permit will not be required pursuant to KRS 151.250 if the following requirements of 401 KAR 4:050 Section 2 are met.</p> <ol style="list-style-type: none">1) No material may be placed in the stream or in the flood plain of the stream to form construction pads, coffer dams, access roads, etc. during construction of pipe crossings.2) Crossing trenches shall be backfilled as closely as possible to the original contour.3) All excess material resulting from construction displacement in a crossing trench shall be disposed of outside the flood plain.4) For erodible channels, there shall be at least 30 inches of backfill on top of all pipe or conduit points in the crossing.5) For nonerodible channels, pipes or conduits in the crossing shall be encased on all sides by at least 6 inches of concrete with all pipe or conduit points in the crossing at least 6 inches below the original contour of the channel. [401 KAR 8:100 Section 1(7)]
T-14	<p>Subfluvial Pipe Crossings: For subfluvial pipe crossings greater than 15 feet in width,</p> <ol style="list-style-type: none">1) the pipe shall be of special construction, having flexible, restrained, or welded watertight joints, and2) valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair. <p>Valves shall</p> <ol style="list-style-type: none">a) be easily accessible,b) not be subject to flooding, andc) if closest to the supply source, be in a manhole with permanent taps made on each side of the valve to allow insertion of a small meter to determine leakage and for sampling purposes. [Recommended Standards for Water Works 8.7.2]

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STOR0000000001 (Hydropneumatic Tanks) 2-190 gallon hydropneumatic water storage tanks:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Residual Disinfection	<p>New water tanks shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect new tanks use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection \geq 25 ppm at the end of 24 hours. Follow the disinfection with thorough flushing and place tanks into service if, and only if, Coliform monitoring applicable to the tank does not show the presence of Coliform.</p> <p>If Coliform is detected, repeat flushing of the tank and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the tank has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>
L-2	Volume	<p>Hydropneumatic (pressure) tanks should have a gross Volume \geq 1000 percent of the largest supply pump's per minute rating (i.e. if the largest pump connected to a pressure tank has a rating of 250 gpm, then the size of the pressure tank should be at least 2,500 gallons). The minimum tank volume shall be an even higher percentage (based on the necessary chlorine detention time) if a water system requires a chlorine detention time greater than the detention time that the related treatment/distribution facilities and this limit otherwise provide. [Recommended Standards for Water Works 7.2.2] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	<p>Additional Limitations: Hydropneumatic (pressure) tanks shall be the only water storage structure in the water distribution system. [Recommended Standards for Water Works 7.2]</p>
T-2	<p>Additional Limitations: Hydropneumatic (pressure) tanks shall serve no more than 50 living units. [401 KAR 8:100 Section 1(7)]</p>
T-3	<p>Additional Limitations: Hydropneumatic (pressure) tanks shall not provide fire protection. [Recommended Standards for Water Works 7.2]</p>

Distribution-Major Construction

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STOR000000001 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-4	<p>Additional Limitations: The materials and designs used for tanks shall provide stability and durability as well as protection for the quality of the stored water. Steel structures shall follow the AWWA standards wherever they are applicable. Other materials of construction are acceptable when properly designed to meet the requirements in this permit. [Recommended Standards for Water Works 7.0]</p>
T-5	<p>Additional Limitations: The safety of employees must be considered in the design of any storage structure. The design of storage structures shall meet or exceed the minimum requirements of pertinent safety laws and regulations in the areas where the structures are constructed. [Recommended Standards for Water Works 7.0.12]</p>
T-6	<p>Additional Limitations: Hydropneumatic (pressure) tanks shall meet ASME code requirements for the construction and installation of unfired pressure vessels or an equivalent requirement of state and local laws and regulations. [Recommended Standards for Water Works 7.2]</p>
T-7	<p>Additional Limitations: Fencing, locks on access manholes, and other necessary precautions shall be provided to prevent trespassing, vandalism, and sabotage. [Recommended Standards for Water Works 7.0.4]</p>
T-8	<p>Additional Limitations: Completely house the tank and locate it above the normal ground surface. [Recommended Standards for Water Works 7.2.1]</p>
T-9	<p>Additional Limitations: All tanks and their appurtenances shall be designed to prevent freezing. [Recommended Standards for Water Works 7.0.13]</p>
T-10	<p>Additional Limitations: The roof and sidewalls of each tank must be watertight with no openings except properly constructed drains, control ports, and piping for inflow and outflow. Any pipes running through the roof or sidewall must be welded. [Recommended Standards for Water Works 7.0.10]</p>
T-11	<p>Additional Limitations: Tank drains shall discharge to the ground surface at a drainage structure inlet or splash plate. [Recommended Standards for Water Works 7.3.2, Recommended Standards for Water Works 7.0.7]</p>

Distribution-Major Construction

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Facility Requirements

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STOR0000000001 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-12	Additional Limitations: No drain on a tank may have a direct connection to a sewer or storm drain. [Recommended Standards for Water Works 7.0.5, Recommended Standards for Water Works 7.0.7, Recommended Standards for Water Works 7.3.2]
T-13	Additional Limitations: Tanks shall be designed to facilitate turn over of water. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.6]
T-14	Additional Limitations: Tanks shall have sufficient capacity, as determined from engineering studies, to meet domestic demands. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.1]
T-15	Additional Limitations: Hydropneumatic (pressure) tanks shall have 1) bypass piping, to permit operation of the water distribution system while the tank is being repaired or painted, 2) a drain, and 3) control equipment. The control equipment shall include a) a pressure gauge, b) a water sight glass, c) an automatic or manual blow-off, d) a means for adding air, and e) pressure operated start-stop controls for the pumps. [Recommended Standards for Water Works 7.2.3]
T-16	Additional Limitations: Tank discharge pipes shall be located in a manner that will prevent the flow of sediment into the distribution system. [Recommended Standards for Water Works 7.0.15]
T-17	Additional Limitations: Appropriate sampling tap(s) shall be provided to facilitate collection of water samples for both bacteriologic and chemical analyses. [Recommended Standards for Water Works 7.0.19]

Distribution-Major Construction

Sandy Hook Water District
Facility Requirements

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STOR0000000001 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-18	<p>Additional Limitations: Adequate controls shall be provided to maintain levels in storage structures. The level controls shall be acceptable to the Division of Water. Level indicating devices should be provided at a central location. Overflow and low-level warnings or alarms should be located at places in the community where they will be under responsible surveillance 24 hrs a day. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.3.3]</p>
T-19	<p>Additional Limitations: Proper protection shall be given to metal surfaces by</p> <ol style="list-style-type: none">paints or other protective coatings and/orcathodic protective devices. [Recommended Standards for Water Works 7.0.17]
T-20	<p>Additional Limitations: If cathodic protection is utilized,</p> <ol style="list-style-type: none">competent technical personnel should design and install the protection anda maintenance contract should be provided. [Recommended Standards for Water Works 7.0.17]
T-21	<p>Additional Limitations: If the interior of the tank is coated or lined, the coating or lining shall be of a type approved by the Division of Water for use in contact with potable water. [401 KAR 8:020 Section 2(19)]</p>
T-22	<p>Additional Limitations: Paints and coatings</p> <ol style="list-style-type: none">shall meet NSF standard 61,shall be acceptable to the Division of Water,shall be properly applied and cured, andshall not transfer any substance to the water which will be toxic or cause tastes or odors (following curing). [Recommended Standards for Water Works 7.0.17]

ESTIMATED COST OF OPERATION AFTER PROJECT COMPLETION

Year Ending 2011

Operating Income:

Water Sales	\$	490,000
Disconnect/Reconnect/Late Charge Fees	\$	-
Other (Describe) Tap Fees & Misc	\$	10,000
Less Allowances and Deductions	\$	-
Total Operating Income	\$	<u>500,000</u>

Operation and Maintenance Expenses:

(Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)

Source of Supply Expense	\$	-
Pumping Expense	\$	-
Water Treatment Expense	\$	-
Transmission and Distribution Expense	\$	180,850
Customer Accounts Expense	\$	-
Administrative and General Expense	\$	224,650
Total Operating Expenses	\$	<u>405,500</u>

Net Operating Income	\$	<u>94,500</u>
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Non-Operating Income:

Interest on Deposits	\$	800
Other (Identify)	\$	<u>-</u>

Total Non-Operating Income	\$	800
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Net Income	\$	<u>95,300</u>
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Debt Repayment:

RUS Interest	\$	49,860
RUS Principal	\$	28,000
Non-RUS Interest	\$	-
Non-RUS Principal	\$	<u>-</u>

Total Debt Repayment	\$	77,860
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Balance Available for Coverage	\$	<u>17,440</u>
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